

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested in view of the above amendments and the following remarks.

Claims 59-62, 64-68, and 75-88 are pending in this application. By this Amendment, Claims 59, 65 and 71 have been amended. The amendments to Claims 59, 60, 65, 66 and 71 have been made for purposes of clarifying the claims by deleting unnecessary language. Claims 75-87 have been held to be directed to one or more non-elected inventions by original presentation. Therefore, Claims 75-87 have been withdrawn from consideration.

In the outstanding Office Action, Claims 59-62, 64-68, 70-73, and 88 were rejected under 35 U.S.C. §103(a) as being unpatentable over Miura et al. (U.S. 2002/0028004 A1, hereinafter Miura) in view of Marchitto et al. (U.S. 6,889,075 B2, hereinafter Marchitto) and Lafreniere (U.S. 4,821,118).

Claims 59 and 65 recite, in part, “a shield which prevents the near-infrared light scattered in a shallow portion of the body from reaching the detecting unit.” Claim 71 recites similar subject matter in method format. It is respectfully submitted that these features are neither disclosed by nor rendered obvious by Miura, Marchitto, Lafreniere, or any conceivable combination thereof.

The Office Action that asserts that Miura describes:

a light source unit configured to emit a light to be reflected or scattered in a part of body (Miura: figure 5, numeral 2);

and a detecting unit configured to detect an image of the light reflected or scattered in the part of body by the light source unit (Miura: figure 5, numeral 4) and generate a biometric pattern using the detected image (Miura: figure 9), wherein the light source unit is set in a horizontal direction or a horizontally slanted direction with respect to the part of body (Miura: figure 5, numeral 2) and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of the body (Miura: figure 5, numeral 4),

Applicant respectfully disagrees.

Miura states “[l]ight transmitted through fingers is received by the CCD camera 4....”<sup>1</sup> Furthermore, in FIG. 5, light sources 2 and CCD cameras 4 are paired one to one in a coaxial configuration. Thus, Miura neither describes nor renders obvious the reflection or scattering of light in a part of the body. That is, Miura describes transmission of the light through the finger to be detected by the CCD cameras.

The Office Action correctly recognizes that:

Miura does not disclose a near infra-red light; a shield which prevents the near-infrared light reflected or scattered in a shallow portion of the part of the body from reaching the detecting unit; and light source unit and the detecting unit are non-coaxial with one another; and detecting unit detects the image of the near infra-red light reflected or scattered in the body on the different position from the position of the light emitted by the light source unit; near-infrared light passes through the surface of the part of the body and is reflected or scattered by a dermal portion, and the shield prevents the near-infrared light reflected or scattered in an epidermal layer, as the near-infrared light passes through the surface of the part of the body, from reaching the detecting unit.

The Office Action subsequently asserts that:

Marchitto, in the field of endeavor, teaches a near infra-red light (see fig. 5, col. 6, lines 10-61; imaging information (FIG. 5) using a pulsed laser producing near infrared radiant energy); and light source unit and the detecting unit are non-coaxial with one another (see fig. 5, col. 6, lines 10-61); detecting unit detects the image of the near infra-red light reflected or scattered in the body on the different position from the position of the light emitted by the light source unit (see fig. 5, col. 6, lines 10-61); near-infrared light passes through a surface of the part of the body and is reflected or scattered by a dermal portion (see fig. 5, col. 6, lines 10-61).

The Office Action subsequently asserts “[i]t would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Miura to utilize near infra-red, shield and a non-coaxial arrangement as suggested by Marchitto....” Thus, the Office Action fails to refer to any particular feature of Marchitto or language in the specification of

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<sup>1</sup> Paragraph [0027].

Marchitto which is asserted to describe or render obvious a shield. That is, the Office Action is understood to recognize that Marchitto does not describe a shield and, more particularly, does not describe a shield which prevents the near-infrared light scattered in a shallow portion of the body from reaching the detecting unit as recited in Claims 59, 65 and 71. Thus, the issuance of a new ground of rejection based in part on a newly cited reference is understood as an admission that the claimed shield is neither described nor rendered obvious by Marchitto.

The Office Action further asserts:

Lafreniere, in the same field of endeavor, teaches a shield which prevents light reflected or scattered in a shallow portion of the part of the body from reaching the detecting unit (see fig. 1, 2, 5, col. 8, lines 15-45; camera 11 and platform 3 provides an optical bench for the camera and platform and the platform is the object plane for that optical system. Between that object plane and the camera lens 41 is a lamp 42 that illuminates the object plane and may be a high intensity neon tube formed in a ring that fits coaxially within cylindrical container 12 as shown. Between lamp 42 and lens 41 is a reflector 43 that directs light from the lamp to the object plane and also forms an aperture at its inner edge 44 in the optical system that blocks any light from the lamp from entering directly into the lens 41. Also, the inside face 3b of the platform 3 may be slightly frosted so that it does not directly reflect an image of the lamp 42 into the lens 41); shield prevents the light reflected or scattered in an epidermal layer, as the light passes through the surface of the part of the body, from reaching the detecting unit (see fig. 1, 2, 5, col. 8, lines 15-45).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Miura with Marchitto to utilize a shield as suggested by Lafreniere, to increase quality and performance of the imaging process by ensuring that only the targeted objects are imaged by the sensor/camera instead of any other objects such as the light source or any other external/ambient light sources (see col. 8, lines 15-45).

Applicant respectfully disagrees.

In the above quoted statements, the Office Action asserts “shield prevents the lights reflected or scattered in an epidermal layer, as the light passes through the surface of the part of the body from reaching the detecting unit (see fig. 1, 2, 5, col. 8, lines 15-45)” and also asserts that it would have been obvious to modify Miura with Marchitto to utilize a shield as suggested by Lafreniere.

Lafreniere describes “[b]etween lamp 42 and lamps 41 is a reflector 43 that directs light from the lamp to the object plane and also forms an aperture at its inner edge 44 in the optical system that blocks any light from the lamp from entering directly into the lens.”<sup>2</sup> Thus, Lafreniere does not describe a shield. Furthermore, Lafreniere neither describes nor renders obvious a shield which prevents the near-infrared light scattered in a shallow portion of the body from reaching the detecting unit as recited in Claims 59, 65 and 71.

M.P.E.P. §706.07(a) provides that a second or subsequent Office Action may not be made Final “where the examiner introduces a new ground of rejection that is neither necessitated by applicant’s amendment of the claims....” In the previously filed Amendment, the language “by limiting an aperture of an image optical system of the detecting unit” was deleted from the claims. That is, the amendments to the independent Claims 59, 65 and 71 did not introduce a recitation of a new feature necessitating the citation of an additional reference. Therefore, it is respectfully submitted that the outstanding Office Action should not have been made Final. Therefore, it is respectfully requested that the finality of the outstanding Office Action be reconsidered and withdrawn.

It is respectfully submitted that Claims 60-62, 64, 66-68, 70, 72-73 and 88 are patentable at least for the reasons argued above with regard to Claims 59, 65 and 71.

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<sup>2</sup> Column 8, lines 24-29.

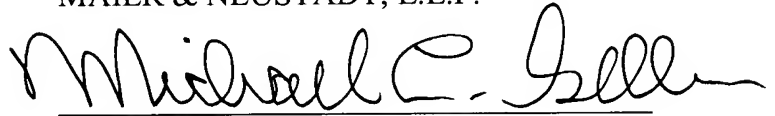
Accordingly, it is respectfully requested that the rejection of Claims 59-62, 64-68 and 70-73 be reconsidered and withdrawn, and that Claims 59-62, 64-68 and 70-73 be found allowable.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below-listed telephone number.

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